

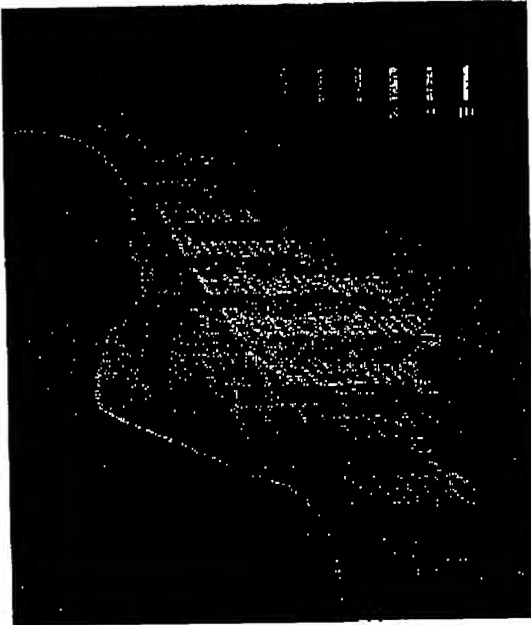
EXHIBIT A

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Evaluation of Pain Characteristics and Intensity

03 of 06

Assessing Pain Intensity



Quantifying the intensity of pain is an essential part of initial and ongoing pain assessment. A variety of validated pain scales are available to assist in the measurement of pain. It is recommended that the clinician select a method of assessing pain intensity and incorporate it into routine clinical use, obtaining the pain measurement in the same way each time. Whichever method is chosen, it should be systematically applied.¹⁸ Pain measurement tools include simple unidimensional scales or multidimensional questionnaires. Pain measurement should include both the time-frame and the clinical context of the pain.¹⁹ Patients with acute pain are usually asked to describe their pain "right now" and may be asked about the average intensity over a fixed period of time in order to provide information on the course of the pain. With chronic pain, experts find it useful to inquire about pain over the previous month and obtain separate measures for pain "on average", pain "at its worst", and pain "at its least" (Table: Pain Characteristics).

Commonly used unidimensional scales include the verbal rating scale (VRS), the numeric rating scale (NRS), a visual analog scale (VAS), and a pictorial scale. The choice of pain scale may depend on the patient's age, ability to communicate, or other specific circumstances. While the VRS (i.e., "none", "mild", "moderate", and "severe") is the simplest measure, other scales can provide additional information.

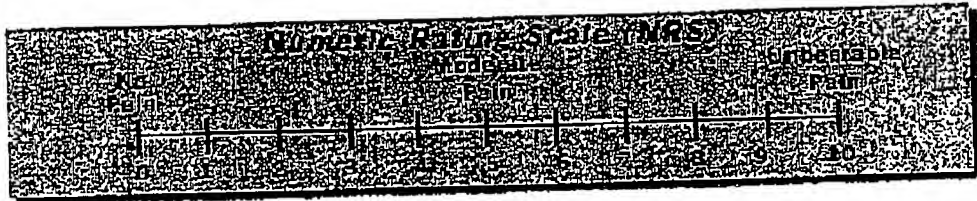
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Click on each Unidimensional Pain Scale to learn more.

[Numeric Rating Scale](#)

[Visual Analog Scale](#)

[Faces Pain Scale](#)



Numeric rating scale. In the clinical setting, the NRS is simple to use and is one of the most common approaches for quantifying pain. Patients indicate their pain intensity on a scale of 0 to 10, with 0 indicating no pain and 10 the worst pain imaginable. This scale is more sensitive to treatment induced changes than the VRS. The NRS can be used at the bedside by the clinician or at home by the patient as part of a pain diary that serves as a record of pain intensity at fixed times throughout the day. Empirical data suggest that three daily assessments can provide detailed information about the actual pain experience of patients with chronic pain.²⁰ The NRS can be a helpful technique for clarifying the relationship between pain and activity, the effectiveness of pain treatments, and the pattern of the patient's pain.

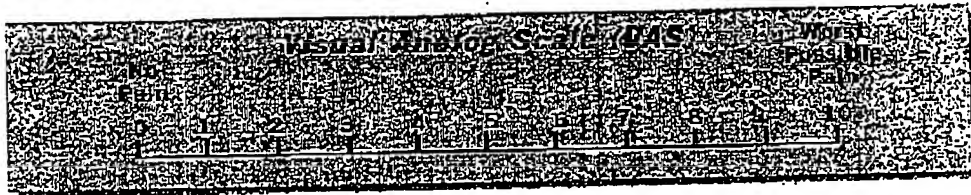
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[Numeric Rating Scale](#)

[Visual Analog Scale](#)

[Faces Pain Scale](#)



Visual analog scale. The VAS is another validated approach to pain measurement and is conceptually similar to an NRS.²¹ The most common VAS consists of a 10-cm line with one end labeled "no pain" and the other end labeled "worst pain imaginable." The patient marks the line at the point that best describes the pain intensity. The length of the line to the patient's mark is measured and recorded in millimeters. The advantage of the VAS is that it does not limit pain to 10 discrete levels of intensity, permitting a more detailed rating of pain.

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Click on each Unidimensional Pain Scale to learn more.

[Numeric Rating Scale](#)

[Visual Analog Scale](#)

[Faces Pain Scale](#)

Faces pain scale. This scale presents pictures of 6 to 8 different facial expressions depicting a range of emotions. This scale may be useful in young children, in patients who have mild to moderate cognitive impairment, or patients with other language barriers.^{22,23}

PAIN ASSESSMENT SCALE	
10	WORST PAIN POSSIBLE UNBEARABLE Unable to do any activities because of pain.
9	
8	INTENSE, DREADFUL HORRIBLE Unable to do most activities because of pain.
7	
6	MISERABLE DISTRESSING Unable to do some activities because of pain.
5	
4	HAGGING PAIN UNCOMFORTABLE TROUBLESOME Can do most activities with rest periods.
3	
2	MILD PAIN ANNOYING Pain is present but does not limit activity.
1	
0	NO PAIN

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Click on each Multidimensional Pain Scale to learn more.

[The McGill Pain Questionnaire \(MPQ\)](#)

[The Memorial Pain Assessment Card](#)

[The Brief Pain Inventory \(BPI\)](#)

The McGill Pain Questionnaire (MPQ) is an extensively validated multidimensional clinical tool that assesses pain in 3 dimensions-sensory, affective, and evaluative-based on 20 sets of words that patients select to describe their pain.²⁵ The words selected by the patient can be used to describe the quality of their pain, such as burning, shooting, electric, or pins and needles, and as throbbing, aching, or heavy. The description of these types of pain can suggest underlying nociceptive or neuropathic mechanisms. The MPQ takes between 5 and 15 minutes to complete, and thus is more burdensome on the patient than the VAS or NRS.

McGill Pain Questionnaire

Click to see McGill Pain Questionnaire

20 sets of words for selection:

1. BURNING
2. STABBING
3. SHOOTING
4. ELECTRICK
5. PINS AND NEEDLES
6. HEAVY
7. THROBING
8. ACHING
9. TINGLING
10. ITCHING
11. CRAWLING
12. COLD
13. WARM
14. HOT
15. FREEZING
16. PULSING
17. BEATING
18. HEAVY
19. EASY
20. DIFFICULT

2 - 10 TOTAL
1 - 1000 TOTAL

Comments:

Click on each Multidimensional Pain Scale to learn more.

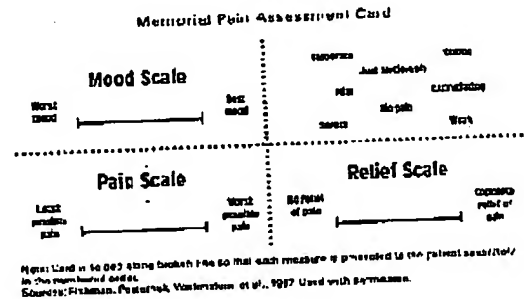
[The McGill Pain Questionnaire \(MPQ\)](#)

[The Memorial Pain Assessment Card](#)

[The Brief Pain Inventory \(BPI\)](#)

The Memorial Pain Assessment Card was developed as a rapid multidimensional pain assessment tool in cancer patients that uses three separate visual analog scales to assess pain, pain relief, and mood and includes a set of adjectives for pain intensity.²⁶ The advantage of this measurement tool is that it takes very little time to administer and that the results correlate with other, longer evaluators of pain and mood. The card can be folded in the clinician's pocket and conveniently presented to the patient one scale at a time.

Click to see Memorial Pain Assessment Card



Handwritten signature

Click on each Multidimensional Pain Scale to learn more.

[The McGill Pain Questionnaire \(MPQ\)](#)

[The Memorial Pain Assessment Card](#)

[The Brief Pain Inventory \(BPI\)](#)

The **Brief Pain Inventory (BPI)** is a quick multidimensional pain measurement tool with demonstrated reliability and validity in patients with cancer, AIDS, and arthritis. Taking 5 to 15 minutes to administer, it incorporates 11 numeric scales addressing pain intensity, as well as the impact of pain on general activity, mood, ability to walk, work, relationships, sleep, and enjoyment of life.²⁴ In contrast to the MPQ or the Memorial Pain Assessment Card, the BPI provides information on the patient's functional status. Reassessment of pain after the initiation of treatment may show improvement in sensory and mood ratings, but the patient may still report no improvement in physical activity. A rating scale that also assesses impairment of function provides a more complete indicator of the effectiveness of chronic pain management. The BPI is a good choice for multidimensional pain measurement in patients with progressive diseases.

Evaluating function is a critically important parameter in overall pain assessment. Functional assessment may include joint range of motion limits, activities of daily living (ADLs), instrumental ADLs, posture, gait, or balance. Although the BPI provides some information on the impact of pain on function, standardized tools for evaluating function are difficult to apply, partly because different types of pain affect function differently. Therefore, measurement tools have been developed specifically for the underlying condition (e.g., for low back pain or arthritis), and will be addressed as relevant in subsequent modules.

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